WHAT IS CLAIMED IS:

1. A method of generating an authentication ciphering offset (ACO) in a communication device, the method comprising:

generating the ACO as a function of one or more parameters, wherein at least one of the one or more parameters is derived from earlier-computed values of the ACO.

2. The method of claim 1, wherein the step of generating the ACO as a function of one or more parameters comprises generating a *k*th value, X_k from one or more of the parameters, and applying a commutative binary operation between X_k and a previous value, ACO_{k-1}.

3. The method of claim 1, wherein the step of generating the ACO as a function of one or more parameters comprises:

generating a *k*th value of ACO as a running sum in accordance with:

$$ACO_k = X_k \oplus ACO_{k-1} = \sum_{i=1}^{k} X_i ,$$

wherein X_i is generated as a function of the one or more parameters excluding the at least one of the one or more parameters that is derived from earlier-computed values of the ACO.

4. The method of claim 3, wherein the sum is a bitwise modulo-2 sum.

5. The method of claim 4, wherein the bitwise modulo-2 sum is performed by means of a bitwise exclusive-OR (XOR) operation.

6. An apparatus for generating an authentication ciphering offset (ACO) in a communication device, the apparatus comprising:

logic configured to generate the ACO as a function of one or more parameters,

wherein at least one of the one or more parameters is derived from earlier-computed values of the ACO.

7. The apparatus of claim 6, wherein the logic configured to generate the ACO as a function of one or more parameters comprises logic configured to generate a kth value, X_k from one or more of the parameters, and to apply a commutative binary operation between X_k and a previous value, ACO_{k-1}.

8. The apparatus of claim 6, wherein the logic configured to generate the ACO as a function of one or more parameters comprises:

logic configured to generate a kth value of ACO as a running sum in accordance with:

$$ACO_k = X_k \oplus ACO_{k-1} = \sum_{i=1}^{k} X_i ,$$

wherein X_i is generated as a function of the one or more parameters excluding the at least one of the one or more parameters that is derived from earlier-computed values of the ACO.

9. The apparatus of claim 8, wherein the logic configured to generate a kth value of ACO comprises logic configured to perform a bitwise modulo-2 sum.

10. The apparatus of claim 9, wherein the logic configured to perform a bitwise modulo-2 sum comprises logic configured to performed a bitwise exclusive-OR (XOR) operation.

11. The apparatus of claim 6, wherein the communication device includes a real-time device.

12. The apparatus of claim 6, wherein the communication device includes a non-real-time device.